REMARKS

The Office action dated October 27, 2009 is acknowledged. Claims 1-18 are pending in the instant application. Claims 1-5, 15 and 16 have been rejected and claims 6-14, 17 and 18 have been withdrawn. By the present Office Action response, claims 1, 4 and 16 have been amended and claims 3 and 15 have been cancelled. In addition, withdrawn claim 9 has been amended solely for clarification purposes to delete a duplicative term. The subject matter of canceled claims 3 and 15 have been incorporated into amended claim 1. Claims 4 and 16 have been amended to depend from claim 1 rather than canceled claims 3 and 15, respectively. Reconsideration is respectfully requested in light of the amendments and arguments made herein. No new matter has been added.

Rejection of claims 1-5, 15 and 16 under 35 U.S.C. 102(b)

Claims 1-5, 15 and 16 have been rejected under 35 U.S.C. 102(b) as being anticipated by WO 02089776 (Kreuter, et al.). The Examiner argues at pages 3-6 in the Office action that Kreuter, et al. teach every limitation recited in the present claims. In particular, the Examiner states that Kreuter, et al. teach nanoparticles made from proteins with coupled apolipoprotein E, as well as nanoparticles based on human serum albumin to which apolipoprotein E is covalently coupled or by using an avidin-biotin complex to enable the crossing of the blood barrier in order to transport pharmaceutical or biological active agents to target the cerebrospinalis. The Examiner also states that the Kreuter, et al. references teaches modified nanoparticles covalently coupled with avidin where biotinylated aplipoprotein E can be found and that the carrier made from the protein nanoparticles may have pharmacologically or biologically active substances. Regarding

claims 15 and 16, the Examiner states that the Kreuter, et al. reference teaches that gelatine A, gelatine B, casein or comparable proteins are suitable as starting proteins to make the nanoparticles and nanoparticles based on human serum albumin, to which aplipoprotein E is coupled covalently or using an avidin-biotin connection to enable the crossing of the blood barrier. Therefore, the Examiner thus concludes that Kreuter, et al. teach every limitation of the present claims and anticipates the presently claimed invention.

The Applicants respectfully disagree with the Examiner's conclusion and submit that the present invention as defined in the present claims as amended is patentably distinct from the invention disclosed in the prior art Kreuter, et al. reference. Claim 1, as amended, recites that the nanoparticles are based on gelatine, serum albumin or a combination thereof. Moreover, the carrier system comprises antibodies for the cell specific enrichment of the nanoparticles.

The present invention according to the present claims is a carrier system for cell-specific, intracellular enrichment of at least one pharmacologically active substance, wherein the carrier system is present in the form of nanoparticles based on gelatine and/or serum albumin, and comprises antibodies that are coupled to the nanoparticles by reactive groups. The antibodies enable a cell-specific attachment and cellular absorption of the nanoparticles.

The teachings of Kreuter, et al. differ from the presently claimed invention in that Kreuter, et al. disclose protein-based nanoparticles possessing apolipoprotein E (ApoE) for crossing the blood-brain barrier, rather than specific antibodies for a cell-specific enrichment. It is submitted that even if Kreuter, et al. generically teach that various

functional proteins such as antibodies may be coupled to the nanoparticles comprising ApoE (page 4, first paragraph of the Office action), the reference does not disclose that antibody-labeled protein nanoparticles may be used for intracellular targeting of pharmaceutically active substances adsorbed to, incorporated into or bound to the nanoparticles.

The Applicants also submit that Kreuter, et al. teach specific nanoparticles for a specific task, namely, targeting nanoparticles to the central nervous system, and lack any indication that the particles disclosed therein might be modified in that ApoE is replaced with an antibody. In contrast, the carrier system of the present invention does not target the central nervous system. Therefore, it is submitted that the teachings of Kreuter, et al. would also not render the presently claimed invention obvious.

In view of the above, it is submitted that the Kreuter, et al. reference clearly does not teach every limitation of the present claims and therefore fails to anticipate the presently claimed invention as recited in claims 1-5, 15 and 16. Withdrawal of this rejection is respectfully requested.

Conclusion

For the foregoing reasons, it is believed that the present application, as amended, is in condition for allowance, and such action is earnestly solicited. Based on the foregoing arguments, amendments to the claims and deficiencies of the prior art references, the Applicants strongly urge that the obviousness-type rejection and anticipation rejections be withdrawn. The Examiner is invited to call the undersigned if

there are any remaining issues to be discussed which could expedite the prosecution of the present application.

Respectfully submitted,

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